Infraclavicular Chest Wall Tumors in Hodgkin's Disease

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SUMMARY

In six of 91 cases of Hodgkin's disease observed over a three-year period, a tumor mass filling the infraclavicular hollow was noted. It was on the left side in all instances. Although in four cases it was the only superficial manifestation of Hodgkin's disease for a long period, in all cases there were ultimately other areas of involvement. The lesion did not occur in any of 81 cases of lymphosarcoma observed concurrently.

NINETY-ONE patients with Hodgkin's disease were observed in a period of three years. In six of them a rounded mass below the clavicle (Figure 1), or an infiltration which filled out the infraclavicular hollow (Figure 2) was observed. This tumor was present on the left side in all cases, appeared to be infiltrative rather than lymphadenopathic, and was often accompanied by pain and sensory changes in the arm, and venous obstruction with edema. In one patient Horner's syndrome was present. No specific changes were noted in a roentgenogram of the chest other than an occasional slight increase in soft tissue density. This manifestation was not observed in a group of 81 patients with lymphosarcoma.

CASE REPORTS

CASE 1. A white male aged 21 first noted pruritus and malaise. A left cervical node appeared, followed by right cervical and axillary nodes and evidence of mediastinal widening. The diagnosis was made after biopsy of the left cervical node. The patient received roentgen therapy with some relief. After two years a left infraclavicular mass appeared which obliterated the infraclavicular fossa and gradually extended into the axilla. This was associated with numbness and tingling in the left hand followed by intense pain in the forearm and shoulder and, later, by anesthesia of the dorsum of the left hand and the lateral half of the fourth and fifth fingers. Atrophy of the left arm, forearm, and intrinsic muscles of the hand followed. Venous drainage was obstructed and this resulted in edema in the arm and the development of collateral venous circulation. There was little response to intensive roentgen and nitrogen mustard therapy. Six months later the mass was stony hard and measured 5x5x1.5 cm. At this time the patient was otherwise quite well. However, the course was gradually downhill and he died in another hospital three years after onset.

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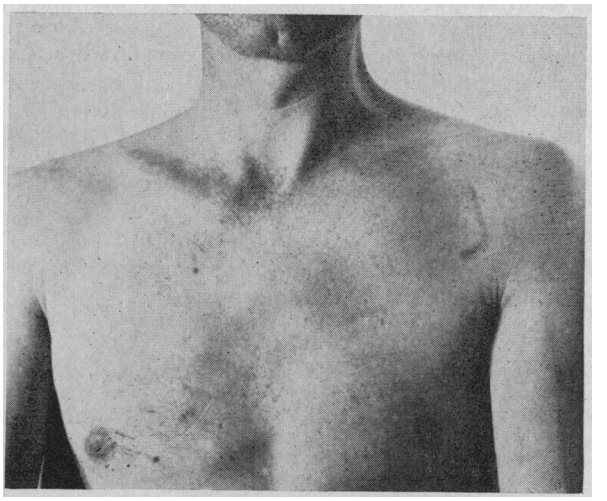

Figure 1.—Infraclavicular tumor mass. Note obliteration of infraclavicular hollow and absence of other cervical tumor masses.

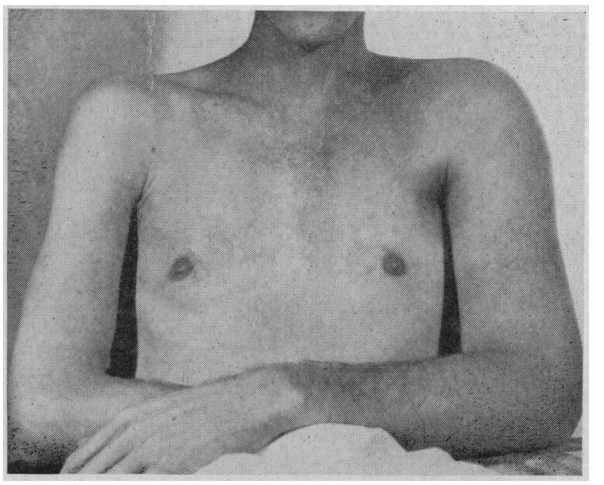

Figure 2.—Obliteration of infraclavicular hollow by flat infiltrating mass. Note the massive edema of the left arm. None of the other cervical lymph nodes were enlarged.

CASE 2. A 21-year-old white male noted night sweats, loss of weight, fever, malaise and fatigability. A lymph node biopsy was performed upon the appearance of generalized lymphadenopathy. Subsequent to the diagnosis the patient responded well to nitrogen mustard and roentgen therapy. A year later a rounded left infraclavicular mass appeared and was soon followed by the appearance of a left axillary mass. Roentgen therapy was directed to this lesion with good response.

CASE 3. Hodgkin's disease was diagnosed in a 52-year-old white male diabetic patient by lymph node biopsy. There was good response to both roentgen and nitrogen mustard therapy. Two years later the patient noted a swelling in the left infraclavicular area which was associated with intense

and increasing pain down the ulnar aspect of the left arm. Subsequently he began to have chills, night sweats and pain in the left side, radiating around the chest at the level of the ninth rib. Upon examination the patient was observed to be febrile and considerably deteriorated, and to have Horner's syndrome on the left side. He stated that during profuse night sweats no sweat formed on the left side of his face. A small lymph node was palpable in the left posterior axillary fold and there were shotty inguinal nodes. The patient did not respond to therapy, the mediastinal involvement progressed, and he died after two and a half years of illness. At necropsy it was noted that the infraclavicular mass was a fibrotic infiltration binding the subclavian artery and the brachial plexus and extending under the clavicle into the supraclavicular fossa. In histologic examination, almost complete destruction of neoplastic elements, presumably by therapy, was noted. Sparsely cellular, mature collagenous fibrous tissue, and scattered clumps of macrophages were observed. In examination of numerous lymph nodes throughout the chest and in the retroperitoneum the histologic pattern of Hodgkin's disease was noted.

CASE 4. A 20-year-old white male noted a cervical mass which was soon followed by generalized lymphadenopathy. The diagnosis was based on lymph node biopsy. The patient responded well to roentgen therapy with a remission for four years. Then a fullness was noted in the left infraclavicular region, associated with moderately enlarged left cervical and axillary nodes. This responded incompletely to roentgen therapy, and subsequently edema developed in the left arm. A year and a half later the infraclavicular mass, as well as a left axillary extension, had become woody hard. At this time it was also noted that the patient had anemia and pronounced proteinuria, which subsequently was found to be associated with cryoglobulinemia and depressed plasma albumin, resulting in massive edema. In roentgen examination of the chest, erosion of the proximal end of the left fourth rib was observed. The patient died seven years after onset with toxemia and massive pleural effusion.

CASE 5. A patient with Hodgkin's disease, diagnosed by biopsy, had evidence of involvement of the vertebrae, stomach, intestines, and lungs in addition to cervical and axillary adenopathy. These involvements responded more or less satisfactorily to roentgen therapy. Four years after onset an infraclavicular mass was noted on the left side. It was of a moderately soft consistency and was approximately 5 cm. in diameter. There was also a 1.5 cm. node palpable in the left axilla. The mass responded well to therapy. There were three recurrences, and each time there was good response to roentgen therapy. The patient died two years later, aged 32, of mediastinal obstruction and massive pleural effusion.

CASE 6. A patient with Hodgkin's disease, diagnosed elsewhere, was reported to have been successfully treated with roentgen therapy and nitrogen mustard. The patient was 29 years old when first observed by the author three years later. Features of advanced disease with cachexia and generalized lymphadenopathy were noted, but there was no hepatic or splenic enlargement. On roentgen examination an ulcer defect in the stomach was noted. Pleural effusions formed, and repeated tapping was necessary. A smooth, firm infiltration filled out the left infraclavicular fossa, and there was obvious venous obstruction with edema of the left arm and venous collaterals draining downward over the left side of the chest. The patient did not complain of pain directly referable to the presence of this infiltration. He died nearly four years after onset.

DISCUSSION AND CONCLUSIONS

The infraclavicular infiltrating tumor noted in six cases of Hodgkin's disease may prove to be a distinct clinical entity. The fact that the lesion was observed in six cases, only in association with Hodgkin's disease and always on the left side, suggests some unique anatomicopathological determining factor. It is, of course, unsafe to conclude that it can occur only on the left side, or that it cannot occur in association with lymphoblastoma of other types. The number of cases observed is small for statistical analysis, but it does seem that the incidence of such infraclavicular infiltrative localization is greater in Hodgkin's disease than in other lymphoblastomata. In fact, there appears to be less than one chance in ten that it is even one-quarter as frequent in lymphosarcoma as it is in Hodgkin's disease. It never occurred without other areas of involvement, but in four cases it was the only superficial manifestation for a long period in the course of the disease.

It is apparently not the same as the sternal node involvement described by Goldman,[1, 2] for in the 13 cases reported by him the lesion overlay the internal mammary artery, and in some cases it was on the right side, in some on the left. The author has observed two cases in which lesions of this kind occurred.

REFERENCES

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